

Listing of Claims

61 1. (currently amended) A phase-change type optical information recording medium comprising:

a transparent substrate; a first protective layer on said the substrate; a recording layer on said the first protective layer; a second protective layer on said the recording layer; and a reflective layer on said the second protective layer,

wherein the recording layer includes as a main component $\text{Ag}\alpha\text{In}\beta\text{S}\gamma\text{Te}\delta$ where α , β , γ , and δ represent atomic percents and satisfy the relations:

$$0.1 \leq \alpha \leq 2.0,$$

$$3.0 \leq \beta \leq 8.0,$$

$$65.0 \leq \gamma \leq 75.0,$$

$$15.0 \leq \delta \leq 30.0, \text{ and}$$

$$97 \leq \alpha + \beta + \gamma + \delta \leq 100; \text{ and}$$

wherein assuming that a minimum recording linear velocity to be V_1 , a maximum recording linear velocity to be V_2 , and a degree of modulation at the time of reading out information to be $I(V)$, then a value of $I(V_2)/I(V_1)$ is within a range from 1 to 1.2.

2. (original) The phase-change type optical information recording medium according to claim 1, wherein a ratio between the maximum recording linear velocity V_2 and the minimum recording linear velocity V_1 is $V_2/V_1 \geq 2.5$.

3. (original) The phase-change type optical information recording medium according to claim 1, wherein the minimum recording linear velocity V_1 is 4.8 m/s or more.

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4. (original) The phase-change type optical information recording medium according to claim 3, wherein the maximum recording linear velocity V_2 is 12.0 m/s or more.

Claim 5 (canceled).

6. (currently amended) The phase-change type optical information recording medium according to claim 1, wherein ~~said recording layer contains~~ the AgInSbTe as a main component ~~with further contains~~ nitrogen added thereto.

7. (currently amended) The phase-change type optical information recording medium according to claim 1, wherein a thickness of ~~said~~ the recording layer is in a range from 13 nm to 23 nm.

8. (currently amended) A phase-change type optical information recording medium comprising at least one recording layer which records information based on crystalline-to-crystalline or crystalline-to-amorphous transition,

said the phase-change type optical information recording medium being rotated around a center of rotation when recording information in or reading information from said recording layer,

wherein the recording layer includes as a main component $\text{Ag}\alpha\text{In}\beta\text{S}\gamma\text{Te}\delta$ where α , β , γ , and δ represent atomic percents and satisfy the relations:

$$0.1 \leq \alpha \leq 2.0,$$

$$3.0 \leq \beta \leq 8.0,$$

$$65.0 \leq \gamma \leq 75.0,$$

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$$15.0 < \delta < 30.0, \text{ and}$$

$$97 \leq \alpha + \beta + \gamma + \delta \leq 100; \text{ and}$$

wherein when the minimum and maximum linear velocities of rotation are respectively V_1 and V_2 , then a value of a degree of modulation corresponding to the maximum linear velocity $I(V_2)$ divided by a degree of modulation corresponding to the maximum linear velocity $I(V_1)$ is between 1 and 1.2.

9. (new) The phase-change type optical information recording medium according to claim 8, wherein a ratio between the maximum recording linear velocity V_2 and the minimum recording linear velocity V_1 is $V_2/V_1 \geq 2.5$.

10. (new) The phase-change type optical information recording medium according to claim 8, wherein the minimum recording linear velocity V_1 is 4.8 m/s or more.

11. (new) The phase-change type optical information recording medium according to claim 10, wherein the maximum recording linear velocity V_2 is 12.0 m/s or more.

12. (new) The phase-change type optical information recording medium according to claim 8, wherein the AgInSbTe further contains nitrogen.

13. (new) The phase-change type optical information recording medium according to claim 8, wherein a thickness of the recording layer is in a range from 13 nm to 23 nm.
